CLAIMS

What is claimed is:

1. A method for avoiding data corruption on a bus extending onto a backplane adapted to receive at least two bus controller cards for connection to the bus, each bus
5   controller card having a plurality of switches controlling its configuration, where different models of bus controller may be received by the backplane, comprising:

      receiving the bus controller cards onto the backplane;

      comparing the model of each bus controller card received by the backplane; and

10   selectively connecting the bus controller cards to the bus utilizing said comparison.

2. The method of claim 1, wherein said comparing the model of each bus controller card comprises:

15   generating information at each bus controller card corresponding to the model of that bus controller card;

      transmitting said information to each bus controller card; and

      analyzing said information at each bus controller card.

20   3. The method of claim 1, wherein the backplane is unpowered while said receiving is performed; further comprising applying power to the backplane after said receiving.

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4. The method of claim 3, wherein said comparing determines that at least one bus controller card is a different model from another bus controller card, further comprising leaving said at least one different model of bus controller card disconnected from the bus.

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5. The method of claim 4, wherein the bus controller cards comprise one high voltage differential bus controller card and one low voltage differential bus controller card having a interface to the bus, wherein said at least one different model of bus controller card left disconnected from the bus is said high voltage differential bus

10   controller card.

6. The method of claim 3, wherein said comparing determines that all of the bus controller cards are of the same model, and wherein said selectively connecting comprises:

15   determining which of the bus controller cards acts as a master card and which
                of the bus controller cards acts as a servant card;
           connecting said master card to the bus;
           transmitting from said master card to each said servant card the settings of the
                switches on said master card;
20   comparing at each said servant card said settings transmitted by said master
                card with the settings of the switches on said servant card.

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7. The method of claim 6, wherein said comparing determines that said setting of the switches on said master card differs from said setting of the switches on said servant card; further comprising

      issuing a bus reset command from said servant card; and

5   preventing said servant card from connecting to the bus.

8. The method of claim 6, wherein said comparing determines that said setting of the switches on said master card is the same as said setting of the switches on said servant card; further comprising connecting said servant card to the bus.

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9. The method of claim 6, wherein said determining makes the bus controller card received at a particular location on the backplane said master card.

10. The method of claim 1, wherein said receiving comprises

15   receiving a first bus controller card onto the backplane;

      applying power to the backplane;

      receiving a second bus controller card onto the backplane;

      issuing a bus reset command;

      designating said first bus controller card as a master card; and

20   designating said second bus controller card as a servant card.

11. The method of claim 10, wherein said comparing determines that said master card is a different model from said servant card, further comprising leaving said servant card disconnected from the bus.

5   12. The method of claim 10, wherein said comparing determines that said master card and said servant card are of the same model, and wherein said selectively connecting comprises:

transmitting from said master card to each said servant card the settings of the switches on said master card;

10   comparing at each said servant card said settings transmitted by said master card with the settings of the switches on said servant card.

13. The method of claim 12, wherein said comparing determines that said setting of the switches on said master card differs from said setting of the switches on said

15   servant card; further comprising

issuing a bus reset command from said servant card; and

preventing said servant card from connecting to the bus.

14. The method of claim 12, wherein said comparing determines that said setting of

20   the switches on said master card is the same as said setting of the switches on said

servant card; further comprising connecting said servant card to the bus.

15. A method for avoiding data corruption on a bus extending onto a backplane adapted to receive two bus controller cards for connection to the bus, each bus controller card having a plurality of switches controlling its configuration, where different models of bus controller may be received by the backplane, comprising:

5   receiving both of the bus controller cards onto the backplane while the backplane is unpowered;

    applying power to the backplane;

    generating information at each bus controller card corresponding to the model of that bus controller card;

10   transmitting said information to each bus controller card;

    analyzing said information at each bus controller card, wherein each bus controller card is determined to be the same model;

    determining which of the bus controller cards acts as a master card and which of the bus controller cards acts as a servant card;

15   connecting said master card to the bus;

    transmitting from said master card to said servant card the settings of the switches on said master card;

    comparing at said servant card said settings transmitted by said master card with the settings of the switches on said servant card; and

20   selectively connecting said master card and said servant card to the bus based on said comparing.

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16. A method for avoiding data corruption on a bus extending onto a backplane adapted to receive two bus controller cards for connection to the bus, each bus controller card having a plurality of switches controlling its configuration, where different models of bus controller may be received by the backplane, comprising:

5   receiving a first bus controller card onto the backplane;

applying power to the backplane;

receiving a second bus controller card onto the backplane;

issuing a bus reset command;

designating said first bus controller card as a master card;

10   designating said second bus controller card as a servant card;

generating information at each bus controller card corresponding to the model

of that bus controller card;

transmitting said information to each bus controller card;

analyzing said information at each bus controller card, wherein each bus

15   controller card is determined to be the same model;

transmitting from said master card to each said servant card the settings of the

switches on said master card;

comparing at each said servant card said settings transmitted by said master

card with the settings of the switches on said servant card; and

20   selectively connecting said master card and said servant card to the bus based

on said comparing.